

WHAT IS CLAIMED IS:

1. An isolated nucleic acid comprising a member selected from the group consisting of:

- (a) a polynucleotide having at least 85% sequence identity to a polynucleotide selected from the group consisting of SEQ ID NOS: 1, 3, and 9, wherein the % sequence identity is based on the entire coding regions and is calculated by the GAP algorithm under default parameters;
- (b) a polynucleotide encoding a polypeptide selected from the group consisting of SEQ ID NOS: 2, 4, and 10;
- (c) a polynucleotide selected from the group consisting of SEQ ID NOS: 1, 3, and 9; and
- (d) a polynucleotide which is complementary to a polynucleotide of (a), (b), or (c).

2. An isolated polynucleotide comprising a member selected from the group consisting of:

- (a) a polynucleotide encoding a polypeptide selected from the group consisting of SEQ ID NOS: 6 and 8;
- (b) a polynucleotide selected from the group consisting of SEQ ID NOS: 5 and 7; and
- (c) a polynucleotide which is complementary to a polynucleotide of (a) or (b).

3. A recombinant expression cassette comprising a polynucleotide operably linked, in sense or anti-sense orientation, to a promoter, wherein said polynucleotide is selected from the group consisting of a member of claim 1 and a member of claim 2.

4. A host cell comprising the recombinant expression cassette of claim 3.

5. A transgenic plant comprising a recombinant expression cassette of claim 3.

6. The transgenic plant of claim 5, wherein said plant is a monocot.

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7. The transgenic plant of claim 5, wherein said plant is a dicot.
8. The transgenic plant of claim 5, wherein said plant is selected from the group consisting of: corn, soybean, sunflower, sorghum, canola, wheat, alfalfa, cotton, rice, barley, and millet.
9. A transgenic seed from the transgenic plant of claim 5.
10. A method of modulating the level of RuvB in a plant cell, comprising:
- (a) introducing into a plant cell a recombinant expression cassette comprising a RuvB polynucleotide operably linked to a promoter, wherein said RuvB polynucleotide is selected from the group consisting of a member of claim 1 and a member of claim 2;
 - (b) culturing the plant cell under plant cell growing conditions; and
 - (c) inducing expression of said RuvB polynucleotide for a time sufficient to modulate the level of RuvB in said plant cell.
11. A method of modulating the level of RuvB in a plant, comprising:
- (a) introducing into a plant cell a recombinant expression cassette comprising a RuvB polynucleotide operably linked to a promoter, wherein said RuvB polynucleotide is selected from the group consisting of a member of claim 1 and a member of claim 2;
 - (b) culturing the plant cell under plant cell growing conditions;
 - (c) regenerating a whole plant which possesses the transformed genotype; and
 - (d) inducing expression of said RuvB polynucleotide for a time sufficient to modulate the level of RuvB in said plant.
12. The method of claim 11, wherein said plant is maize.
13. An isolated protein comprising a member selected from the group consisting of:
- (a) a polypeptide of at least 20 contiguous amino acids from a polypeptide selected from the group consisting of SEQ ID NOS: 2, 4, 6, 8, and 10;

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- (b) a polypeptide selected from the group consisting of SEQ ID NOS: 2, 4, 6, 8, and 10;
- (c) a polypeptide having at least 80% sequence identity to, and having at least one linear epitope in common with, a polypeptide selected from the group consisting of SEQ ID NOS: 2, 4, 6, 8, and 10; and
- (d) at least one polypeptide encoded by a polynucleotide selected from the group consisting of a member of claim 1 and a member of claim 2.

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